



cryptomon.io

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Table of Contents

Mission.....	3
Executive summary	3
Fundamental analysis.....	3
Technical analysis	3
What is Machine Learning?.....	4
Price predictions	4
Community	5
Challenges.....	5
Competitive advantage	5
Roadmap	6
Cryptomon Token - CMN.....	6
How to use CMN token	7
Benefit from purchasing CMN token during the Token sale.....	7
Liquidity plan.....	7
Token sale details.....	8
Summary.....	8
Structure	9
Funds usage	9
Core Team	9
Terms, conditions and risks	10
CMN token is not an investment.....	10
CMN token does not guarantee property rights	10
Risk of failure.....	10
Technical risks.....	10
Legal appendice - Recent regulatory actions	11



Mission

<< Build more intelligent trading indicators and tools for traders with the power of machine learning. >>

Executive summary

Exchange trading is an extremely risky environment. More than 70% of traders lose all their funds during the first year of operation, and less than 10% become sustainably profitable. The market constantly rotates. The reasons for this significant rotation are difficult predictability of financial markets, poor preparation and emotional trading decisions of beginners. An obsessive advertisement of brokers promises instant enrichment and provokes novice traders to commit poorly planned transactions, losing their capital. Thus, the process of acquiring of experience and developing of trading skills turns to be extremely painful and expensive process. In addition, even if a trader aims to develop trading skills, he turns out to be very limited in tools. Cryptomon mission is to increase the level of trading among private investors by creating an ecosystem of effective tools and aggregation of the community.

Depending on volume and period of the investment, two main approaches are used: technical and fundamental analysis. For traditional markets, both methods equally indicate the state of market and complement each other.

Fundamental analysis

Fundamental analysis is the evaluation of economic, financial and other key variables, known as fundamentals, to determine a security's true value. Note that recently the cases of falsification of news and data on the state of companies are increased, therefore not very useful for trading decisions. Technical analysis proved its justification in last years.

Technical analysis

Technical analysis (the counterpart to fundamental analysis), the former is more interested in looking at a security's price movements to make better-informed decisions. Technical analysis is done based on trading data from the past. It includes the analysis of charts with different time intervals, information about trading volume and other important statistical data. In technical analysis, a variety of tools and methods are carried out, but all of them are ultimately based on the analysis of recurring patterns of supply and demand, characterizing the mood of investors at a specific moment, ignoring macroeconomic indicators of the traded asset. In the context of cryptocurrency markets, possibilities of fundamental analysis are limited. Technical analysis has much greater importance, as cryptocurrency market is still driven by the laws of supply and demand.

Technical analysis tools provide insight and allow the trader to see information in a different way than just looking at a price chart. This insight aids in making better and more informed trading decisions.



Cryptomon's mission is to provide and develop a set of tools (predictions and indicators) for technical analysis with the power of machine learning.

What is Machine Learning?

Artificial Intelligence (AI) allows replacing humans with machines. In the 1980s, AI research focused primarily on expert systems and fuzzy logic. With computational power becoming cheaper, using machines to solve large-scale optimization problems became economically feasible. As a result of the advances in hardware and software, nowadays AI focuses on the use of neural networks and other learning methods for identifying and analyzing predictors, also known as features, or factors, that have economic value and can be used with classifiers to develop profitable models. This particular application of AI often goes by the name Machine Learning (ML).

There is no doubt that machine learning offers a lot of advantages for traders. With tools based on ML traders don't need to care about market microstructure, economy, trader psychology, or similar soft stuff.

But how can a machine learning model make accurate predictions on data that it has not seen before?

The answer is generalization, and this is the capability that we seek when we apply machine learning to challenging problems. When we fit a machine learning algorithm, we require a training dataset. This training dataset includes a set of input patterns and the corresponding output patterns. The goal of the machine learning algorithm is to learn a reasonable approximation of the mapping from input patterns to output patterns.

We can summarize this mapping that machine learning algorithms learn as a function (f) that predicts the output (y) given the input (X), or restated:

$$y = f(X)$$

Main goal in fitting the machine learning algorithms is to get the best possible $f()$ for our purposes. We are training the model to make predictions in the future given inputs for cases where we do not have the outputs. Where the outputs are unknown. This requires that the algorithm learn in general how to take observations from the domain and make a prediction, not just the specifics of the training data.

Price predictions

The crypto market's financial analog is, of course, a stock market. To maximize financial reward, the field of stock market prediction has grown over the past decades, and has more recently exploded with the advent of high-frequency, low-latency trading hardware coupled with robust machine learning algorithms. Thus, it makes sense that this prediction methodology is replicated in the world of cryptocurrencies, as the network gains greater liquidity and more people develop an interest in investing profitably in the system. To do so, we feel it is necessary to leverage machine learning technology to predict the price of cryptocurrencies.



Community

Sharing experience and knowledge transfer are the basis of evolutionary development on any field, especially while developing new prediction algorithms. Members help each other to move to the next level of development. That's why in Cryptomon a lot of attention is paid to the community.

All Cryptomon prediction algorithms and machine learning indicators are open sourced on our GitHub page, so everyone can enhance existing or develop new prediction algorithms with our ML stack from <https://cryptomon.io/lab>. Every enhancement, documented with better prediction performance will be rewarded with CMN tokens (considering use <https://gitcoin.co> or <https://gittoken.org>). Detailed contribution reward policy will be released in Q2 2018.

Challenges

Every trader would like to know many of below mentioned questions to make profitable trades:

- What is the market trend?
- Whether market will close higher or lower compared to its opening levels?
- What could be expected high, low, close levels?
- Whether the market will be lacklustre or will have some movement?
- Whether trend will continue

Machine learning can be used to answer each of these questions. In time of writing of this whitepaper, Cryptomon offer to users two prediction algorithms and one trading indicator based on ML:

- Price predictions based on K-nearest neighbors algorithm
- Price predictions based on Multilayer perceptron model
- WTBS (When To Buy and Sell) technical indicator based on CNN (Convolutional Neural Network)

Cryptocurrency trading is still a young market with a lot of growing up to do. By shifting to a more evidence-based approach to trading instead of promoting gut decisions, it'll gain credibility and be taken more seriously in the finance industry.

For traders themselves, a more data-driven approach will help them make better decisions, avoid losses, and ultimately make more money.

Competitive advantage

Cryptomon is ready to use platform with real prediction algorithms and custom indicators based on machine learning. First version of Cryptomon was released in June 2017, and since then we built community of experts in machine intelligence around the Cryptomon platform.



All these give us a significant competitive advantage over other trading tools and platforms which are still in development and they have using of ML only as a future milestone.

Roadmap

June 2017

- First version with basic predictions
- BTC subscriptions

Q3 - Q4 2017

- Cryptomon Lab with ML stack
- New indicators in Lab - WTBS (When To Buy and Sell) indicator, WM (Whale Moves) indicator
- Multilayer perceptron and K-nearest neighbors v2 implemented on web
- WTBS v1 indicator implemented on web

Q1 2018

- CMN token public presale and sale
- CMN token based subscriptions, BTC subscriptions disabled
- WM v1 indicator implementation on web
- Bounty program start

Q2 2018

- CMN reward program start
- Requests for enhancements listed on <https://gitcoin.co> or <https://gittoken.org>
- New prediction algorithms and indicators
- Support for the new exchanges and currency pairs
- CMN token on more than 2 exchanges
- Signals dashboard

Q3 2018

- 0x protocol signals (support for any ERC20 tokens)
- Trade signals notifications for Telegram app
- Support for the new exchanges and currency pairs
- New prediction algorithms/indicators with monitoring of news and social feeds

Q4 2018

- Containerized projects in Lab - user can deploy and execute project directly from web with visible results
- Integrations with 3rd parties like <https://tradingview.com> - Cryptomon indicators on interactive chart, or integrations with trading bots
- Support for the new exchanges and currency pairs

Q1 - Q2 2019

- Lab marketplace
- CMN token on more than 5 exchanges

Cryptomon Token - CMN

Cryptomon is an ecosystem with a set of tools (prediction algorithms and technical indicators) and community. In order for such a system to work efficiently and the interaction



between participants to be simple and understandable, an internal currency is needed. CMN tokens issued during the Token sale (ICO) are used as internal currency of Cryptomon ecosystem. After the token release, it will be added to a number of cryptocurrency exchanges, so the community members can always sell the earned tokens, which creates a full cycle of token circulation.

How to use CMN token

CMN will be accepted as an payment method in the entire Cryptomon ecosystem, so inside the system itself the growing demand for CMN is created. Same as ETH is not only a currency but also required for smart contracts execution, CMN is required for Cryptomon platform operations.

CMN is required to:

1. Pay for subscriptions to Cryptomon services
2. As a reward for community, for enhancements existing prediction algorithms/indicators or as a reward for creating new
3. Bounty program

Besides that, CMN can always be exchanged to other currencies on various exchanges.

With increase of level of user involvement demand for CMN grows. This model has wide range of abilities for developing economy inside the project as demand in CMN increases while user involvement level grows.

Benefit from purchasing CMN token during the Token sale

The base price for CMN during the first presale is \$ 0.455 USD, which is only 20% of the price after the token will be publicly listed on exchanges in terms of the cost of platform services at the rate of CMN.

For example, the cost of a monthly subscription will be about \$ 10 USD or 20 CMN during token sale. Thus, the price level on the exchanges is expected to rise to at least \$ 2.5 USD for 1 CMN that makes 5 times growth, after which the price increase of CMN will be continued and it will be closely related to the growth of the Cryptomon platform and the value created by each active platform participant.

Liquidity plan

CMN is an payment method within the Cryptomon platform. Thus, the platform will actively advertise exchanges, where you can buy CMN tokens among new customers. 20% of collected funds and 20% of the issued tokens are allocated for active market makings in order to maintain liquidity on exchanges and turnover of the token. Also, predicting the demand from new customers, the Cryptomon will regularly buy CMN tokens on the exchanges acting as a gateway between new customers and exchanges. In addition, the



demand for CMN on the exchange depends on how popular is the service and how active is the community creating the content. As described above, the greater the level of user involvement, the higher the demand for CMN. This is a base for natural explosive growth in demand, along with the development of the Cryptomon platform.

Token sale details

The launch of Cryptomon token (CMN) creation process is based on the Ethereum blockchain. The distribution process will consist of three phases, the main token sale, and two token presale phases. The process will begin with its token presale phase starting at **Tuesday, 13:00:00 UTC, February 20, 2018.**

The main focus of Cryptomon project is the community, so the token sale strategy is aimed to reach the wide audience and involve participants in the project.

Summary

What is CMN?	Cryptomon project internal currency. The demand and price of the token depend on how popular the service is and how active is the community.
Initial token price	Fixed; 0.65 USD = 1 CMN + discounts during presales.
Token price after the token sale	Flexible; 1 CMN \geq 2.5 USD. Continued growth with the development of Cryptomon platform and increasing activity of community and team.
Crowdsale duration	3 x 30 days
Emission volume	20,000,000 CMN, unsold tokens will be burned.
Soft cap	500,000 USD
Hard cap	7,800,000 USD
Blockchains	Ethereum
Distribution process	CMN tokens will be credited at the address from which ETH was sent right after the payment was received and confirmed. It may takes from 5 minutes to 1 hour.
Participants from the USA	Allowed; CMN meets the requirements of SEC as project's internal currency.
Payment methods	ETH



Structure

Three phase public token sale: 1. Token presale with 30 % discount 2. Token presale with 15 % discount 3. Main token sale	60 % (12 million CMN tokens)
Stabilization fund to keep CMN turnover	20 % (4 million CMN tokens)
Community	10 % (2 million CMN tokens)
Team	7 % (1.4 million CMN tokens)
Bounty program	3 % (0.6 million CMN tokens)

Funds usage

Development	54 %
Marketing expenses, user acquisition	18 %
Exchange partnerships	15 %
Operational costs, hosting	9 %
Security reserve	3 %
Legal expenses	1 %

Core Team

Peter Klobusnik: CEO / Founder / Architect

Working for more than 12 years in the IT industry as an R&D expert and entrepreneur. Currently focusing on deep learning and its applications on time series analytics. Experience in trading and trading algorithms development since 2013.

Peter Kotula: CTO / Founder / Architect / Lead software developer

Working in the IT industry since 2006, in various positions, as developer, project manager, architect and DevOps. Blockchain and smart contracts enthusiast. Currently working on Fast/Big Data projects.

Juraj Burian: Architect / Lead software developer

Born in 1970, in 1994 finished university study with specialization on theoretical physics, then start developing software on professional basis. In present time working on Big Data



projects, distributed calculations with focus on functional programming techniques. Favorite languages are Scala and Haskell, favorite toolset SMACK.

Martin Hazy: Support / Marketing specialist

Martin is working almost 10 years in IT industry for global companies. Except his passion for music and art he is focusing on searching trade patterns and trading strategies in cryptocurrencies and other markets either.

Terms, conditions and risks

CMN token is not an investment

CMN tokens are the internal currency of Cryptomon project. They are not some sort of formal or legally binding investment. Due to unforeseen circumstances, the objectives set forth in this document may be amended. All individuals and parties involved in the purchase of CMN tokens do it at their own risk.

CMN token does not guarantee property rights

CMN tokens do not guarantee the rights to any property or the right to make managerial decisions regarding the Cryptomon project.

Risk of failure

It is possible that, for various reasons, the Cryptomon platform and the team's actions in terms of marketing and promotion may not be successful. The team will take all necessary measures, however, cannot guarantee the commercial success of the platform.

Technical risks

There are technological risks associated with the development of the Cryptomon platform and Ethereum blockchains presented in the project. In the event of malfunctioning of Ethereum, CMN tokens may work in an unexpected manner.



Legal appendice - Recent regulatory actions

Country	Legal framework	Effective date
China	http://www.circ.gov.cn/web/site0/tab6554/info4080736.htm	November 15th, 2017
South Korea	http://www.fsc.go.kr/info/ntc_news_view.jsp?bbsid=BBS0030&page=1&sch1=&sword=&r_url=&mp;menu=7210100&no=32085	September 28th, 2017
Russia	Warning from the Canadian Securities Administrators (CSA)	August 24th, 2017
Abu Dhabi	https://www.adgm.com/media/192772/20171009-fsra-guidance-for-icos-and-virtual-currencies.pdf	August 28th, 2017
Germany	https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2017/fa_bj_1711_ICO_en.html?nn=9866146	November 13th, 2017
Australia	http://asic.gov.au/regulatory-resources/digital-transformation/initial-coin-offerings/	October 26th, 2017
Canada	http://www.osc.gov.on.ca/documents/en/Securities-Category4/csa_20170824_cryptocurrency-offerings.pdf	September 5th, 2017
USA	https://www.investor.gov/additional-resources/news-alerts/alerts-bulletins/investor-alert-public-companies-making-ico-related	August 30th, 2017
European Union	https://www.esma.europa.eu/press-news/esma-news/esma-highlights-ico-risks-investors-and-firms	October 27th, 2017
France	http://www.amf-france.org/en_US/Publications/Consultations-publiques/Archives?docId=workspace%3A%2F%2FSpaceSStore%2Fa2b267b3-2d94-4c24-acad-7fe3351dfc8a	September 12th, 2017
Hong-Kong	http://www.sfc.hk/web/EN/news-and-announcements/policy-statements-and-announcements/statement-on-initial-coin-offerings.html	November 14th, 2017
Israel	http://www.isa.gov.il/sites/ISAEng/1489/1511/Pages/default.aspx	September 29, 2017
Japan	http://www.fsa.go.jp/policy/virtual_currency/07.pdf	October 27th, 2017
UK	https://www.fca.org.uk/news/statements/initial-coin-offerings	September 12th, 2017
Singapore	http://www.mas.gov.sg/~media/MAS/Regulations%20and	November



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Switzerland	https://www.finma.ch/en/news/2017/09/20170929-mm-ico/	September 29, 2017

